

# United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,112	10/14/2003	Erno Temesi	21334-1267	4430
29450 759	90 07/07/2005		EXAMINER	
BARLEY SNYDER, LLC			VU, BAO Q	
BERWYN, PA	KES DRIVE, SUITE 275 19312		ART UNIT	PAPER NUMBER
,			2838	
			DATE MAILED: 07/07/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
	10/685,112	TEMESI ET AL.				
Office Action Summary	Examiner	Art Unit				
	Bao Q. Vu	2838				
The MAILING DATE of this communication ap Period for Reply	ppears on the cover sheet with the	correspondence address				
A SHORTENED STATUTORY PERIOD FOR REPITHE MAILING DATE OF THIS COMMUNICATION  - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply In No period for reply is specified above, the maximum statutory period Failure to reply within the set or extended period for reply will, by statution Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	.136(a). In no event, however, may a reply be to ply within the statutory minimum of thirty (30) da d will apply and will expire SIX (6) MONTHS from te, cause the application to become ABANDON	timely filed  ays will be considered timely.  m the mailing date of this communication.  IED (35 U.S.C. § 133).				
Status						
1)⊠ Responsive to communication(s) filed on 16 i	<u>March 2005</u> .					
<u> </u>						
	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims						
4) ☑ Claim(s) 1,3 and 5-21 is/are pending in the a 4a) Of the above claim(s) is/are withdres 5) ☐ Claim(s) is/are allowed. 6) ☑ Claim(s) 1,3 and 5-21 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/	awn from consideration.					
Application Papers						
9) The specification is objected to by the Examir	ner.					
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.						
Applicant may not request that any objection to the	e drawing(s) be held in abeyance. S	ee 37 CFR 1.85(a).				
Replacement drawing sheet(s) including the corre	· · · · · · · · · · · · · · · · · · ·	• • • • • • • • • • • • • • • • • • • •				
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreig  a) All b) Some * c) None of:  1. Certified copies of the priority documer  2. Certified copies of the priority documer  3. Copies of the certified copies of the pri application from the International Bures  * See the attached detailed Office action for a list	nts have been received. nts have been received in Applica ority documents have been receiv au (PCT Rule 17.2(a)).	ition Noved in this National Stage				
Attachment(s)						
1) Notice of References Cited (PTO-892)	4) Interview Summar					
<ol> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 Paper No(s)/Mail Date</li> </ol>	Paper No(s)/Mail I 5) Notice of Informal 6) Other:	Date Patent Application (PTO-152)				

Application/Control Number: 10/685,112 Page 2

Art Unit: 2838

#### **DETAILED ACTION**

### Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1, 8-10, 13, 15, and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (USP 6,285,170) in view of Gordon (USP 5,815,386). Matsumoto discloses the claimed, a bridge rectifier (4), feedback windings (8c), a rectifier switch (52) and a current limiting circuit (6), in parallel with the rectifier switch (52), except for having the feedback inductor inductively coupled to the input inductor of the boost converter. Gordon discloses that it is known in the art to provide the feedback inductor inductively coupled to the input inductor of the boost converter. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the switching power supply circuit of Matsumoto with the feedback inductor inductively coupled to the input inductor of the boost converter of Gordon, in order to make for a more efficient circuit.
- 3. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (USP 6,285,170) in view of Gordon (USP 5,815,386). Matsumoto and Gordon disclose the claimed invention except for the number of windings and the

ŧ

Application/Control Number: 10/685,112

Art Unit: 2838

switching signals being controlled by ratio of the number of windings and the windings and the switching signal is controlled by polarization of the windings. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the number of windings and the switching signals being controlled by ratio of the number of windings and the windings and the switching signal is controlled by polarization of the windings since the examiner takes Official Notice of the equivalence of the polarization of windings and the control of the switching based on the ratio of the number of windings and for their use in the transformer switching art and the selection of any of these known equivalents to effect the transfer of current from the primary side to the secondary side of the transformer would be within the level of ordinary skill in the art.

Page 3

4. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (USP 6,285,170) in view of Min (USP 5,202,819). Matsumoto discloses the claimed device except for having at least two rectifying elements connected to at least one of the input lines and two controllable rectifying elements that are switched. Min discloses that it is known in the art to provide at least two rectifying elements connected to at least one of the input lines and two controllable rectifying elements that are switched. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide at least two rectifying elements connected to at least one of the input lines and two controllable rectifying elements that are switched of Min with the switching power supply circuit of Matsumoto, in order to

Art Unit: 2838

provide a controlled input type rectifier circuit having a circuit for preventing or minimizing an inrush current generated by initiation of rectification.

- 5. Claims 3, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (USP 6,285,170) in view of Gordon (USP 5,815,386) and further in view of Min (USP 5,202,819). Matsumoto and Gordon discloses the claimed device except for having at least two rectifying elements connected to at least one of the input lines and two controllable rectifying elements that are switched. Min discloses that it is known in the art to provide at least two rectifying elements connected to at least one of the input lines and two controllable rectifying elements that are switched. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide at least two rectifying elements connected to at least one of the input lines and two controllable rectifying elements that are switched of Min with the switching power supply circuit with inductive coupling of the primary and secondary windings use in a boost circuit of Matsumoto and Gordon, in order to provide a controlled input type rectifier circuit having a circuit for preventing or minimizing an inrush current generated by initiation of rectification.
- 6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (USP 6,285,170) in view of Gordon (USP 5,815,386) and further in view of Min (USP 5,202,819). Matsumoto, Gordon and Min disclose the claimed invention except for the number of windings and the switching signals being controlled by ratio of the number of windings and the windings and the switching signal is controlled by polarization of the windings. It would have been obvious to one having

Art Unit: 2838

ordinary skill in the art at the time the invention was made to have the number of windings and the switching signals being controlled by ratio of the number of windings and the windings and the switching signal is controlled by polarization of the windings since the examiner takes Official Notice of the equivalence of the polarization of windings and the control of the switching based on the ratio of the number of windings and for their use in the transformer switching art and the selection of any of these known equivalents to effect the transfer of current from the primary side to the secondary side of the transformer would be within the level of ordinary skill in the art.

## Response to Arguments

7. Applicant's arguments with respect to the claims have been considered but are most in view of the new ground(s) of rejection.

#### Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 2838

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bao Q. Vu whose telephone number is (571) 272-2088. The examiner can normally be reached on Monday-Fridays, 8:00AM- 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael S. Sherry can be reached on (571) 272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/685,112

Art Unit: 2838

Primary Examiner Art Unit 2838 Page 7

July 5, 2005

Œ.